

Serial No.: 10/721,593

Attorney's Docket No.: 10559/186002/P8089C

Amendment to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application:

1-23. (Canceled)

24. (Previously presented) A portable communication device, comprising:

an video acquiring part;

a plurality of image manipulating devices, each operating to determine similarities between two image parts obtained from said video acquiring part; and

a mode switching element, which configures each of said image manipulating devices to determine an entire calculation in a first mode, and configures each of said image manipulating devices to determine only a portion of an entire calculation in a second mode.

25. (Previously presented) An device as in claim 24, wherein said image manipulating devices are sum of absolute difference ("SAD") devices.

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26. (Previously presented) An device as in claim 25, wherein said first mode is a whole SAD mode, in which each SAD receives a different block and source section, and calculates a difference between the whole block and the whole source.

27. (Previously presented) An device as in claim 26, wherein said SADs calculate differences between a 16 by 16 reference and a 16 by 16 source, pixel by pixel.

28. (Previously presented) An device as in claim 25, wherein said second mode is a mode in which each single SAD performs a fraction of a single block SAD calculation.

29. (Previously presented) An device as in claim 28, wherein there are N of said SADs, and each of the N computation units provides 1/N of a total output.

30. (Previously presented) A device as in claim 24, further comprising a testing element that determines and selects said first mode or said second mode.

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31. (Currently Amended) ~~An~~ A device as in claim 27 wherein, in said first mode, the unit calculates a relation between the entire 16 by 16 reference and the 16 by 16 source, and in said second mode, the unit calculates a fraction of the entire calculation.

32. (Currently Amended) ~~An~~ A device as in claim 24 further comprising a logic unit which detects which of said modes will produce a desired result, and configures a calculation to said mode.

33. (Currently Amended) A device as in claim 24~~1~~, wherein said portable communication device is a cellular telephone.

34. (Currently Amended) A video camera, comprising:  
a video part that produces video as output;  
a plurality of sum of absolute difference devices, each operating to calculate a total distortion between two video parts obtained from said video part; and  
a calculation partitioning element which partitions a calculation between said sum of absolute difference devices based on characteristics of the two video parts, wherein one of the plurality of sum of absolute difference devices operates to calculate the distortion between the two video parts obtained

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from said video part or operates to calculate a portion of the distortion between the two video parts obtained from said video part based on said partitioning.

35. (Previously presented) A camera as in claim 34 wherein said calculation partitioning element is a switching element which switches between different configurations in which the different sum of absolute difference devices calculate different amounts of a total output calculation.

36. (Previously presented) A camera as in claim 34 wherein there are said N of said sum of absolute difference devices, and in a first mode, each of said sum of absolute difference devices calculates  $1/N$  of a total calculation.

37. (Previously presented) A camera as in claim 35 further comprising a logic unit which determines a proper mode of operation.

38. (Previously presented) A camera as in claim 34, further comprising a logic element that determines said characteristics, and controls said calculation partitioning element based on said characteristics.

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39. (Previously presented) A camera as in claim 38, wherein said calculation is partitioned so that all of a calculation is done by a single sum of absolute difference device.

40. (Previously presented) A camera as in claim 34, wherein said camera is within a cellular telephone.

41. (Previously presented) The camera as in claim 34, wherein said camera is within a videoconferencing unit.

42. (Previously presented) A video calculating device, comprising:  
a video camera producing output video signals;  
a plurality  $n$  of sum of absolute difference ("SAD") devices, each having a subtract device, an absolute device, and an accumulator, connected to receive said video signals; and  
a mode changing device, changing a mode of operation between a first mode in which each SAD device calculates a difference between two image parts of said video signals, and a second mode in which each SAD device calculates  $1/N$  of a total of said video signals.

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43. (Previously presented) The video device as in claim 42, wherein said video camera is within a cellular telephone.

44. (Previously presented) An apparatus, comprising:  
a personal computer;  
a video card, within said personal computer, having a plurality of image manipulating devices, each operating to determine similarities between two image parts of video from said video card; and a mode switching element, which configures each of said image manipulating devices to determine an entire calculation in a first mode, and configures each of said image manipulating devices to determine only a portion of an entire calculation in a second mode.

45. (Previously presented) An apparatus as in claim 44, wherein said image manipulating devices are sum of absolute difference ("SAD") devices.

46. (Previously presented) An apparatus as in claim 44, wherein said first mode is a whole SAD mode, in which each SAD receives a different block and source section, and calculates a difference between the whole block and the whole source.

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47. (Previously presented) A television unit, comprising:  
a high definition television tuner;  
a plurality of image manipulating devices, each operating to determine similarities between two image parts obtained from said high definition television tuner; and  
a mode switching element, which configures each of said image manipulating devices to determine an entire calculation in a first mode, and configures each of said image manipulating devices to determine only a portion of an entire calculation in a second mode.

48. (Previously presented) A unit as in claim 47, wherein said image manipulating devices are sum of absolute difference ("SAD") devices.

49. (Previously presented) A unit as in claim 48, wherein said first mode is a whole SAD mode, in which each SAD receives a different block and source section, and calculates a difference between the whole block and the whole source.